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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/818,391 | 03/27/2001 | Kunihiro Yamamoto | B588-017 | 2786 |

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EXAMINER

NGUYEN, CINDY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2171

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,391

Applicant(s)

YAMAMOTO ET AL.

Examiner

Cindy Nguyen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This is in response to application filed on 03/27/01 in which claims 1-18 are presented for examination.

1. *Priority(IDS)*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 6, 13 and 14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to provide enabling disclosure for the following:

The claimed "stepless fashion" has not been described such that it would enable one skilled in the art to make and/or use the same.

3. *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2171

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

4. Claims 1-3, 5, 6, 8-11, 13, 14, 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lipson et al. (U.S 6463426) (Lipson).

Regarding claims 1, 8, 9, 16-18, Lipson disclose: An image retrieval apparatus for retrieving a desired image from a plurality of stored images, comprising:

storage (18, fig. 1 and corresponding text, Lipson) means for storing the plurality of images and image features of each of the plurality of images in a form correlated with the images (20, fig. 1 and corresponding text, Lipson);

feature calculation means for calculating image features of a retrieval source image (col. 9, lines 1-35, Lipson);

acquisition means for acquiring a plurality of image features regarding one image by varying (col. 8, lines 34-43, Lipson), within a predetermined range, the image features that have been stored in said storage means (col. 10, lines 43-49, Lipson); and

retrieval means for performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the image

Art Unit: 2171

features acquired by the acquisition means and the image features calculated by the feature calculation means (col. 15, lines 60 to col. 16, lines 58, Lipson).

Regarding claims 2 and 10, most of the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Lipson disclose: wherein said acquisition means varies a luminance component over N steps with regard to each image feature (fig. 3-3B and corresponding text, Lipson).

Regarding claims 3 and 11, most of the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Lipson disclose: wherein said acquisition means varies a color-difference component over N steps with regard to each image feature (col. 5, lines 43 to col. 6, lines 33, Lipson).

Regarding claims 5, 6, 13 and 14, most of the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Lipson disclose: wherein said acquisition means varies a luminance component and varies a color-difference component of an image feature in stepless fashion (col. fig. 7B and corresponding text, Lipson).

5. *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

Art Unit: 2171

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 7, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipson et al. (U.S 6463426) (Lipson) in view of Shiiyama (U.S 6411291).

Regarding claims 4 and 12, most of the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Lipson disclose: wherein said retrieval means calculates degree of similarity between each image that has been stored in said storage means and the retrieval-source image using the plurality of image features acquired by said acquisition means (col. 17, lines 45-53, Lipson).

However, Lipson didn't disclose: adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval source image. On the other hand, Shiiyama discloses: adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval source image (col. 3, lines 50-65, Shiiyama). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval source image in the system of Lipson as taught by Shiiyama. The motivation being to enable the user to receive the best matching image during the search.

Regarding claims 7 and 15, most of the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Lipson/Shiiyama disclose: wherein said acquisition means has specifying means for allowing an operator to specify number of steps over which image features are varied as well as the amount of change provided by each step (col. 8, lines 40 to col. 9, lines 6, Shiiyama). Thus, at the time invention was made, it would have

Art Unit: 2171

been obvious to a person of ordinary skill in the art to include an operator to specify number of steps over with image features are varied and change in each step in the system of Lipson as taught by Shiiyama. The motivation being to enable the user to process for reducing the amount of computation for retrieving the degree of similarity of image in the system.

7. Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Normile et al. (U.S 5872864). Method and system for automatic classification of video images.

Foote et al. (U.S 6404925). Methods and apparatuses for segmenting an audio visual recording using image similarity searching and audio speaker recognition.

Abbel-Mottaleb et al. (U.S 6263113). Method for detecting a face in a digital image.

Abbel-Mottaleb et al. (U.S 5915038). Using index keys extracted from JPEG-compressed images from image retrieval.

Shiiyama (U.S 6400853). Image retrieval apparatus and method.

8. Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this

Art Unit: 2171

application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CW

Cindy Nguyen
April 3, 2003


SAFET METJAHIC
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